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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,132	10/10/2003	Yiping Ding	149-0101US	1302
29855	7590	06/14/2005	EXAMINER	
WONG, CABELLO, LUTSCH, RUTHERFORD & BRUCCULERI, P.C. 20333 SH 249 SUITE 600 HOUSTON, TX 77070			BHAT, ADITYA S	
			ART UNIT	PAPER NUMBER
			2863	

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.	Applicant(s)	
	10/684,132	DING ET AL.	
	Examiner	Art Unit	
	Aditya S. Bhat	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 19-33, 35 and 40-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/19/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 46-47 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on another dependent claim. See MPEP § 608.01(n). Accordingly, the claims 46-47 have not been further treated on the merits.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8, 19-33, 35, 40-45 are rejected under 35 U.S.C. 102(e) as being anticipated by McGee et al. (USPUB 2003/0110007)

With regards to claim 1, McGee et al. (USPUB 2003/0110007) teaches a method for reducing the amount of data of system metrics collected or reported from agent nodes to a system performance monitor for system performance monitoring and analysis, the method comprising the steps of:

sampling a first system metric and obtaining a sampled value of the first metric; (Page 2, Paragraph 0017)

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reporting the sampled value of the first metric if the sampled value is not between a first parameter and a second parameter; (Page 2, Paragraph 0064 & 0066)

not reporting the sampled value if the sampled value is between the first and second parameters; and McGee et al. (USPUB 2003/0110007) teaches an alert/ report when the system is not within certain parameters/thresholds (Page 2, Paragraph 0066). Therefore it would be within reasonable interpretation to conclude that no alert/report is generated when the system is running normally.

wherein the first parameter and the second parameter are any real numbers. (Refer to figure 6)

With regards to claims 2 and 27, McGee et al. (USPUB 2003/0110007) teaches the first parameter and the second parameter are derived from sampled values of the first system metric. (Page 4, Paragraph 0059)

With regards to claims 3 and 28, McGee et al. (USPUB 2003/0110007) teaches the first parameter and the second parameter are derived from at least one statistical parameter of the sampled values of the first system metric. (Page 4, Paragraph 0059)

With regards to claims 4 and 29, McGee et al. (USPUB 2003/0110007) teaches at least one statistical parameter of the sampled values of the first system metric includes the first moment and second moments of the sampled values. (602; Refer to figure 6)

With regards to claims 5 and 30, McGee et al. (USPUB 2003/0110007) teaches at least one statistical parameters of the sampled values of the first

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system metric further includes the of the sampled values. (Page 6, Paragraph 0096)

With regards to claims 6 and 31, McGee et al. (USPUB 2003/0110007) teaches assuming the sampled value of the first metric that is not reported with an average, wherein the average is an average of previously sampled data of the first system metric. (Page 4, Paragraph 0058)

With regards to claims 7 and 32, McGee et al. (USPUB 2003/0110007) teaches the average is a running average. (Page 5, Paragraph 0075)

With regards to claims 8 and 33, McGee et al. (USPUB 2003/0110007) teaches assuming the sampled value of the first metric that is not reported with an average, wherein the first parameter is zero and the second parameter is a positive number. (Refer to figure 9)

With regards to claims 19 and 40, McGee et al. (USPUB 2003/0110007) teaches

sampling a second system metric and obtaining a sampled value of the second system metric; (Page 1, Paragraph 0007)

calculating the correlation coefficient cc between the sampled value of the first system metric and the second system metric after M sampling; (Page 2, Paragraph 0017)

stopping sampling and stopping reporting the sampled value of the second system metric if $|cc|$ is not less than a threshold; (Page 2, Paragraph 0017) and

continuing sampling and reporting the sampled value of the second system metric if $|cc|$ is less than a threshold, wherein $|cc|$ is the absolute value of correlation coefficient cc . (Page 2, Paragraph 0017)

With regards to claim 20, McGee et al. (USPUB 2003/0110007) teaches at the system performance monitor, receiving the reported sampled value of the first metric; at the system performance monitor, assuming the sampled value of the first metric as an average for the sampled value not reported. (Refer to figure 1)

With regards to claims 21 and 43, McGee et al. (USPUB 2003/0110007) teaches displaying the received and assumed values of the first metric. (Page 4, Paragraph 0064)

With regards to claim 22, McGee et al. (USPUB 2003/0110007) teaches a method for reducing the amount of data of system metrics collected or reported from agent nodes to a system performance monitor for system performance monitoring and analysis, the method comprising the steps of:

sampling a first and a second system metrics and obtaining sampled values of the first and second system metrics; (110; Refer to figure 2)

calculating the correlation coefficient cc between the sampled value of the first system metric and the second system metric after M sampling, wherein M is an integer; (Page 13, Paragraph 0251-0252)

stopping sampling and stopping reporting the sampled value of the second system metric if $|cc|$ is not less than a threshold; (Page 2, Paragraph 0064 & 0066) and

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continuing sampling and reporting the sampled value of the second system metric if $|cc|$ is less than a threshold, wherein $|cc|$ is the absolute value of correlation coefficient cc . McGee et al. (USPUB 2003/0110007) teaches an alert/report when a it is not within certain parameters/thresholds (Page 2, Paragraph 0066). Therefore it would be within reasonable interpretation to conclude that the system will continue sampling and reporting when it is within the threshold.

With regards to claims 23,24, 41 and 45, McGee et al. (USPUB 2003/0110007) teaches the threshold is 0.7 or 0.9. (Refer to figure 8)

With regards to claim 25, McGee et al. (USPUB 2003/0110007) teaches after stopping sampling and stopping reporting the sampled value of the second system metric if $|cc|$ is not less than a threshold, estimating the value of the second system metric using the reported value of the first system metric when the first system metric is reported. (Page 9, Paragraph 0179)

With regards to claim 26, McGee et al. (USPUB 2003/0110007) teaches computer system module for system performance monitoring, reporting and analysis, the module comprising:

- a controller module operative to control the system performance monitoring; (110; Refer to figure 2)

- a sampling module coupled to the controller module, operative to sample at least a first system metric and obtaining a sampled value of the first metric; (110; Refer to figure 2)

- a reporting module coupled to the sampling module, operative to report each sampled value of the first metric if the sampled value is not between a first

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parameter and a second parameter, and not to report the sampled value, if the sampled value is between the first and second parameters; wherein the first parameter and the second parameter are any real numbers. (Page 2, Paragraph 0064 & 0066)

With regards to claim 35, McGee et al. (USPUB 2003/0110007) teaches the controller module is operative to stop sampling after N times, wherein N is an integer. (Page 13, Paragraph 0247)

With regards to claim 42, McGee et al. (USPUB 2003/0110007) teaches monitoring module operative to receive the reported sampled value of the first metric and to assume the sampled value of the first metric as an average for the sampled value not reported. (110; Refer to figure 2)

With regards to claim 44, McGee et al. (USPUB 2003/0110007) teaches computer system module for system performance monitoring, reporting and analysis, comprising:

- a controller module operative to control the system performance monitoring; (110; Refer to figure 2)

- a sampling module coupled to the controller module, operative to sample at least a first and a second system metrics and obtaining sampled values of the first and second metrics; (110; Refer to figure 2)

- a reporting module coupled to the sampling module;

wherein the controller module is operative to calculate the correlation coefficient cc between the sampled value of the first system metric and the second system metric after M sampling, wherein M is an integer; to stop sampling and to stop

reporting the sampled value of the second system metric if $|cc|$ is not less than a threshold; and to continue sampling and reporting the sampled value of the second system metric if $|cc|$ is less than a threshold, wherein $|cc|$ is the absolute value of correlation coefficient cc . (Page 2, Paragraph 0064 & 0066)

Allowable Subject Matter

3. The following is a statement of reasons for the indication of allowable subject matter: Claims 9-18, 34, 36-38 and 39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 9, 34, and 36-37:

The primary reason for the allowance of claims 9 & 34 is the inclusion of the method steps of: calculating a weighted running average, wherein $d_n(w) = d_n w + d_{n-1}(1-w)$, d_n and d_{n-1} are the weighted running average after n 'th or $(n-1)$ 'th sampling, w is the weighing factor for the sampling $S_n = S_{n-1} + (n-1)(d_n - d_{n-1})^2 / n \sigma_n^2 = S_n/n$, wherein S_n , S_{n-1} are the sum of the differences squared, σ_n is the standard deviation, calculating the first parameter to be $(d_n + a\sigma_n)$ and calculating the second parameter to be $(d_n + b\sigma_n)$ wherein a and b are two constant real numbers. It is this feature found in the claim(s), as they are claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claim(s) allowable over the prior art.

The primary reason for the allowance of claim 36 is the inclusion of the method steps of: wherein N is determined by a confidence interval cl , a tolerable

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variance error e_v , wherein $12 e_v = 100f(cl)^2 / N$, wherein $f(cl)$ is the $(1+cl/100)/2$ -quantile of the unit normal distribution. It is this feature found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

The primary reason for the allowance of claim 37 is the inclusion of the method steps of: the controller module is operative to report the weighted running average d_{iN} where iN is a multiple of N , i is an integer; and to report d_n n when the $|d_n - d_{iN}|$ is greater than dd , wherein dd is a real number. It is this feature found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

Claims 10-18 are allowed due to their dependency on claim 9.

Claim 39 is allowed due to their dependency on claim 34.

Claim 38 is allowed due to their dependency on claim 37.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Frogner et al. (USPN 6,735,553) teaches use of model calibration to achieve high accuracy in analysis of computer networks, and Ding et al. (USPN 6,564,174) teaches a system performance monitoring method e.g.

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for computer system, involves performing analytic tests on data points representing computer system resource measurements, to detect possibility of power-tail behavior

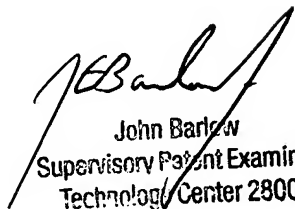
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aditya S. Bhat whose telephone number is 571-272-2270. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aditya Bhat
June 2, 2005

AB


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